

**ABSTRACT OF THE DISCLOSURE**

A calcium hydroxide slurry is injected into the off gases in the exhaust duct of an industrial plant which burns sulfur containing fuels. The calcium hydroxide slurry reacts with  $\text{SO}_3$  produced as a result of the combustion process and forms a primary solid calcium sulfate reaction product. The calcium sulfate can then be removed in a particulate removal station in the plant.